



# PRODUCT SPECIFICATION

**MODEL:** V3400APT-1 AND V3400APT-PP-1

**PRODUCT CODE:** 4742 AND 4742-03

**DESCRIPTION:** LIGHT-DUTY OUTDOOR PAN-AND-TILT DRIVE WITH AUTOPAN

- Preset version available
- Autopan
- Square base option available
- 10 lb (4.5 kg) load rating



Model V3400APT-1 Pan-and-Tilt Drive is a light-duty, weatherproof unit with autopan designed to handle loads up to 10 pounds (4.5 kg) when mounted in either the upright or inverted position. Operational stability with minimum coast is provided by drive motors with instant start-stop characteristics. The drive trains are constructed with output gears that do not require field lubrication. Slow-speed, high-torque pan and tilt motors maintain a low noise level and are impedance protected. A molded gasket protects the unit from moisture.

In its standard form, the V3400APT-1 is designed to mount onto the V1600WM wall mount. To mount it to other surfaces, the V3400SB square base option is required.

NOTES	SPEC NO.	REV.	SEC.
SUPERSEDES PRODUCT SPECIFICATION 435-493	435	1299	1



**V3400APT-1 PAN-AND-TILT DRIVE**

The V3400APT-1 may be ordered with a factory-installed preset position option, Model V3400APT-PP-1. This pan-and-tilt is equipped with potentiometers that, when used with an appropriate preset control, allow position feedback operation of the unit.

Model V3400APT-1 and V3400APT-PP-1 are UL approved and listed under UL Standard 2044.

**CAUTION:** Use of preset units in autopan mode voids the warranty. Mounting the unit outdoors in an inverted position voids the warranty.

## CONTRACTORS' SPECIFICATION

### LIGHT-DUTY WEATHERPROOF PAN-AND-TILT DRIVE

The pan-and-tilt drive shall be a weatherproof type with a load rating of 10 lb (4.5 kg) in either the upright or inverted position. It shall be capable of continuous unattended panning. A version with preset position operation shall also be available.

The load rating shall be based on a moment-arm distance of 4.00 inches from the center of gravity of the load to the center of tilt rotation. Torque rating shall be 2.5 lb-ft (3.4 Nm) in the pan mode and 3.3 lb-ft (4.5 Nm) in the tilt mode. Maximum horizontal travel shall be 350 deg, and maximum vertical travel shall be +/-60 deg. Pan speed shall be 6 deg/sec and tilt speed shall be 3.6 deg/sec with 60 Hz input or 5 deg/sec pan and 3 deg/sec tilt with 50 Hz input.

Pan and tilt motors shall incorporate minimum coast braking. Pan limit stops shall be externally adjustable. A slip clutch shall be provided in pan mode and limit switches in tilt mode. The unit weight shall not exceed 8 lb (4 kg). Housing material shall have a UL flame rating of 94-VO. Steel or thermoplastic shall be used for all gears, and bearings shall be of the self-lubricating sleeve and thrust types.

The operating ambient temperature range shall be 0 to 125 deg F or -18 to +52 deg C. The unit shall operate from 24 V, 50/60 Hz, and shall be UL listed. Maximum input power shall not exceed 10 VA in pan or tilt mode. The limit switches shall have 11 A, 10-million cycle rating. The weatherproof pan-and-tilt drive shall be Vicon's Model V3400APT-1; the preset version shall be Vicon model V3400APT-PP-1.

Product specifications subject to change without notice.  
Copyright © 1999 Vicon Industries Inc. All rights reserved.

Vicon part number 8006-7435-02-00  
Vicon and its logo are registered trademarks of Vicon Industries Inc.

**ASSOCIATED EQUIPMENT AND ACCESSORIES**

**Model V3400SB Square Mounting Base:** Permits square-base mounting of the V3400APT. Product Code 0166.

**Model V1600WM Wall Mount:** Supports loads up to 40 lb (18 kg). Product Specification 457.

**Model V181RM-1 Relay Box:** Allows greater-than-normal cable runs. For use with 24 VAC pan-and-tilt drives and V113APT or V113APT-B Control. Product Specification 133.

**TECHNICAL INFORMATION**

**ELECTRICAL**

**Input Voltage:** 24 V, 50/60 Hz.

**Power Consumption:** Pan: 3 W.  
Tilt: 4 W.

**Heat Equivalent:** 0.4 btu/min (0.1 cal/min).  
Note: These figures represent the conversion of 100% of the electrical energy to heat. Actual percentage of heat generated will be less and will vary from product to product. These figures are provided as an aid in determining the extent of cooling required for an installation.

**Limit Switches:** Tilt: 11 A, 10-million cycle rating.  
Pan: autostop or mechanical slip clutch.

**Connector:** Vicon part no. 8000-9789-00.  
(Mating connector Vicon part no. 1806-5052-01 supplied.)  
Preset version: Vicon part no. 1806-5024-01. (Mating connector Vicon part no. 1806-5039-01 supplied.)

**Cable Requirements:** 8-conductor, unshielded.  
Preset: 12-conductor, unshielded.

**Safety Standard:** UL 2044.

**OPERATIONAL**

**Angular Travel:** Pan: 350° maximum.  
Tilt: ±60° maximum.

**Limit Stops:** Externally adjustable.

**Speed:** Pan: 6°/sec at 60 Hz; 5°/sec at 50 Hz.  
Tilt: 3.6°/sec at 60 Hz; 3°/sec at 50 Hz.

**Torque:** Pan: 30 lb-in. (3.4 N-m).  
Tilt: 40 lb-in. (4.5 N-m).

**Load Rating (Based on C.G. to center of tilt rotation distance of 4 in. or 10.2 cm):** 10 lb (4.5 kg).

**Braking:** Automatic.

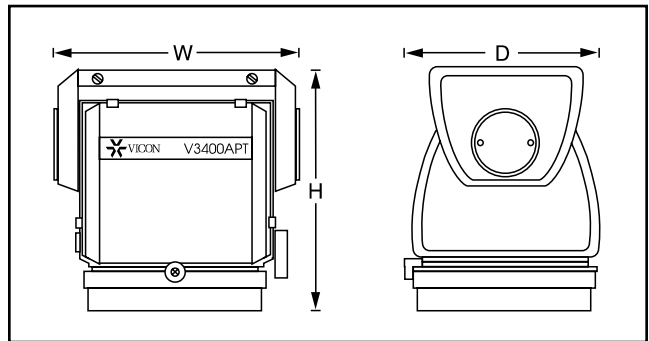
**Duty Cycle:** Pan: continuous.  
Tilt: intermittent.

**Overload Protection:** Slip clutch on pan. Limit switches on tilt.

**Maximum Operating Distance:** See Table 1.

**MECHANICAL**

**Dimensions:** See Figure.  
Height (H): 6.9 in. (17.5 cm).  
Width (W): 6.6 in. (16.7 cm).  
Depth (D): 5.1 in. (13.0 cm).



**Weight:** 5.3 lb (2.4 kg).

**Construction:** Thermoplastic and die-cast aluminum.

**Finish:** Light gray.

**Mounting:** See Figure 2.

**Bearings:** Self-lubricating sleeve bearings for all heavier load points.

**Gears:** Thermoplastic.

**Seals:** Molded, weatherproof gasket.

**Shipping Dimensions:** Height: 9.5 in. (24 cm).  
Width: 8.0 in. (20 cm).  
Length: 9.8 in. (25 cm).

**Shipping Weight:** 6.8 lb (3.1 kg).

**Shipping Volume:** 0.4 ft³ (0.01 m³).

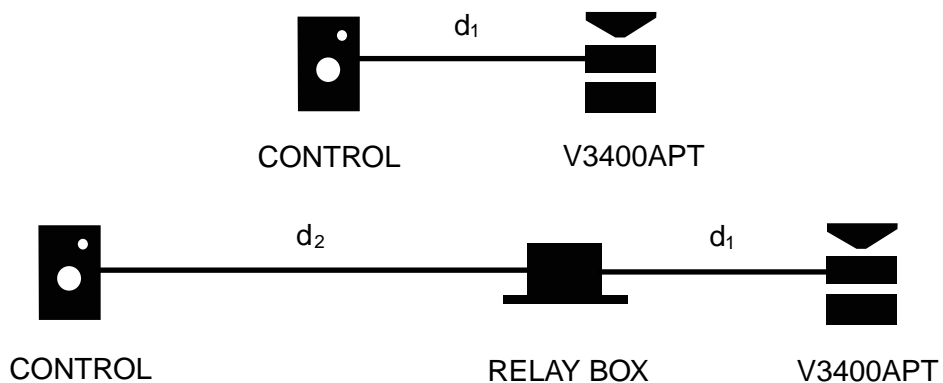
**ENVIRONMENTAL**

**Ambient Temperature Range:** -30 to 140° F (-34 to +60° C).

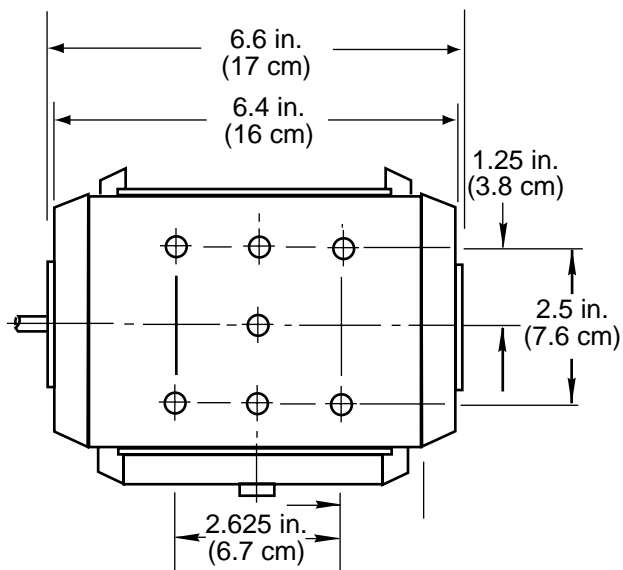
**TABLE 1  
MAXIMUM OPERATING DISTANCES**

Control Model	Relay Box*	Cable Size (AWG) Annealed Copper	Maximum Distance ft (m)
Any Vicon 24 VAC-output hardwired control or receiver	None. Distance $d_1$ in Figure 1.	22	1,400 (430)
		20	2,200 (670)
		18	3,500 (1,100)
		16	5,700 (1,700)
		14	10,000 (3,000)
	V181RM-1 Distance $d_2$ in Figure 1.	22	6,000 (1,800)
		20	10,000 (3,000)
		18	15,000 (4,000)

\*Distance from control to relay box. (Distance  $d_2$  in Figure 1.) Distance from relay box to pan-and-tilt unit is the same as the distance from control to pan-and-tilt.



**Figure 1  
Operating Distances With and Without Relay Box**



**Figure 2  
Camera/Housing Mounting Plate**